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4. Conceptual Models of Nature in Pakistan.

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Introduction.

Conceptual models of nature in Pakistan are the products of the unique sociocultural, historical and political relations that have shaped other aspects of life in the region. To suggest that there are systemic interactions between differing conceptual models is to state the obvious. That such systems exhibit complex interactions, is again, hardly surprising or problematic. Guindi (2008) suggests that complexity does not mean an absence of triviality, but rather something far more conceptually powerful. She argues, instead that complexity refers to nestled interrelatedness. Such a description is fitting for a region which exists in the cross roads between the Middle East, Central Asia and the South Asian plains. Successive waves of migrants, some peaceful and some conquering armies, have left their marks on the modern country of Pakistan. Northern Punjab is perhaps one of the more acute microcosms of such complex intermingling of competing systems to be found in Pakistan. It has endured domination from outside while retaining considerable autonomy in practice. Consequently, despite repeated conquest and political subordination, there is evidence of variation at surprisingly local levels. Shackle (1976) has amply demonstrated the linguistic diversity of Pakistan's Punjab, which is indicative of the extent to which varying populations have influenced one another while nevertheless retaining important conceptual distinctions. Models of nature offer an example of how adaptation coupled with profound conservatism can operate in practice.

Throughout the ethnography of Pakistan, which by and large is not primarily concerned with conceptual models of nature, there are examples of new cultural models being adopted with ease. Such models, be they of time (Mughal 2008), conflict management (Lyon 2002; 2004b), kinship (Fischer 2006; Lyon 2005), political maneuvering (Barth 1959; Lindholm 1982; Lyon 2004a) or systematic gift exchange (Egler 1959), all contain within them the impact of migration and exchange of ideas and people across the region. Competing models are invoked in strategic ways depending on the contingencies of the situation. Core terms and concepts are subject to radical change over time. Yet despite such fluidity, it is possible to identify what Bennardo (2009) calls foundational models of culture. Such models are perhaps not as dominant as Bennardo suggests the radial notion of space is for Tongan society, but they inform diverse aspects of social life, much as radiality apparently does in Tongan social organization.

The Ethnography of Pakistan.

It is fair to say that conceptual models of nature have not been at the forefront of the anthropology of Pakistan. Pakistani ethnography has been largely preoccupied with issues related to marriage, conflict, religion, politics, economics and migration (see Lyon, 2004). This is not to say that there has not been any work carried out on how different populations within Pakistan conceive of nature, but rather that for the most part these conceptual models must be extracted from ethnographies primarily on other subjects.

Ethnographies of Pakistan have been subject to a certain amount of sociological ghettoization as well, which is both defensible and sometimes regrettable. Broadly speaking, the ethnography of Khyber-Pukhtunkhwa (formerly the North West Frontier Province), Balochistan and the Federally Administered Tribal Areas (FATA), have been characterized as ‘tribal’ cultures in which the people espouse fiercely egalitarian rhetorics and carry out cultural practices and discourses which overtly assert idealized notions of masculinity and honor. Ethnographies of Punjab and Sindh, in contrast, have characterized populations there in ‘peasant’ cultures.

This approach emphasizes the hierarchical relationships between groups and the complex interconnectedness between those groups. Caste affiliation and relationship within the systems of production and distribution have tended to be more important in the ethnographies emanating from these provinces. Such ethnographic divides are defensible in part because they map neatly on to public discourses that local people use about themselves and others. There is also the reality that what is true in Pakistani Punjab is not going to be radically different from Indian Punjab, given the long history of co-residence of the religious communities across most parts of the Punjab and in particular in cities like Lahore and Rawalpindi, so it is reasonable for ethnographers of Punjab to pay close attention to the ethnographies produced about the Indian Punjab. Such ethnographies do indeed emphasize aspects of social organization based on caste (*jati* or *zat*) and economic relations between dominant and subordinate groups.

Ethnographies of the so called tribal populations, have tended to look west or north for comparator materials. So Central Asia and the Middle East (including Iran) have come to be important reference points for understanding Balochi or Pukhtun populations. Consequently, there has been a de-emphasis on the complex interdependency of caste and instead a focus on expressions of masculinity and honor, on the practices and ideologies of blood feud and revenge and on the strategic manipulation of shifting alliances in ongoing competition over resources.

This broad division of anthropology of Pakistan has largely persisted despite an increasing body of ethnographic evidence which would suggest that there is considerable continuity across Pakistan and arguably into northern India. It therefore behoves us to be mindful of the traps of both the domain and the level at which research is targeted. If we concentrate on economic relations of production, then we see clear patterns of economic interdependency characteristic of peasant social relations. If instead, we examine aspects of honor and control of women, then a far more egalitarian and tribe like autonomy emerges even in the most peasant like populations across Punjab and Sindh. Therein, perhaps lay one of the dilemmas for developing conceptual models of nature across Pakistan; there are cultural models which rise or sink from the surface based on the social context and the expedient goals of the individuals involved. This is not to say that there are not foundational cultural models that underpin most, if not all, populations across Punjab and Khyber-Pukhtunkhwa at least, but rather that there would appear to be competing foundational models which may get invoked, or not, based on a host of contingent factors. A comprehensive catalogue of Pakistani CMN, will therefore not result in a unified foundational model upon which the various flavors of Pakistani culture are built.

Idea Systems Over Time.

One of the ongoing puzzles with human culture, is of course its communicability over time and space. There are undoubtedly idea systems which are critical for effective cultural communication. That some idea systems seem relatively durable despite changes to economic or political principles of organization provides us a chance to study how knowledge is produced and organized. In South Asia, we are fortunate to have very old texts which provide a glimpse into some aspects of social organization and behaviors over a very long time frame. It is therefore possible to compare contemporary classificatory systems and resource management behaviors with those of several hundreds and possibly thousands of years ago. What we find is changes to the meaning of some terms which reflect changes in major environmental and economic behaviors, as well as retention of many relationships between terms. In other words, the attributes associated with many terms seems subject to change, even if the logic of the relationship between terms may be identifiably analogous or indeed, the same.

Dove (1992), for example, has examined the ways in which the term *jungal/jangala* has changed in meaning over time. The term *jungal*, today refers to forested, hilly land which is peripheral and wet or humid. Using historical Sanskrit texts, Dove argues that *jangala* previously referred to savannah that was central, dry and plateau land. The change has been brought about through changes in agricultural practices which have effected environmental shifts which have, in turn, led to lexical shifts in core terms associated with the environment and more sociologically ideas of nature. Widespread pastoralist practices transformed ancient thorn forests into anthropogenic savannah. So what had previously been culturally desirable *jangala* became culturally undesirable forest waste (*jungal* or jungle). The term has of course also come to be used as a pejorative adjective to describe wild people (*jungli*).

In terms of animal classifications, Smith (1991) has identified a useful set of broad types of animal classification from the ancient Vedic texts which he argues are not only instructive for understanding how ancient Sanskrit speakers categorized animals, but also for developing a better sense of how people were categorized. The models of nature, in other words, are just as much about political social organization as reflections of conceptual models of nature. Smith lists four distinct systems of classification of animals: 1) zoological, 2) domestic, 3) sacrificed/not sacrificed, 4) edible/inedible. Such systemic mechanisms for ordering the natural world persist in contemporary Pakistan, though they have been modified by new waves of people bringing with them alternative ways of interpreting such categories as sacrificed/not sacrificed or edible/inedible. Muslims, for example, would agree in principle that there are animals which can be sacrificed or not, but the animals suitable for such categories are different. Interestingly, there does appear, to be some ambiguity about edible/inedible animals in practice, even if the classification of animals demonstrates high levels of consensus ideologically.

Religious Migration and Transformation.

South Asia is no stranger to pluralist religious communities. Pakistan's currently overwhelming Muslim population belies a far more diverse and turbulent history of religious diversity, contradiction, syncretism and production. Across Punjab and Khyber-

Pukhtunkhwa Buddhism was the dominant religion at one time. The Punjab is, of course, famously the birthplace of the Sikh religion. Hinduism remains an important cultural influence long after the people in formerly Hindu areas have converted to other religions. Islam came to the area now known as Pakistan in various waves of conquest and conversion from shortly after the time of the Prophet Muhammad onwards. The British brought their own brand of Christianity and other missionary organizations have introduced different types of Christianity in various parts of South Asia. Much of the history of religious conversion and transformation goes hand in hand with the movement of people across Pakistan. This passageway from the Central Asian plateaus to the Indus Valley lowlands has seen successive waves of conquering armies and migrant communities either fleeing something or someone, or on the move to some imagined improvement.

Such migration and religious transformation has arguably impacted on a number of cultural idea systems both directly and indirectly related to issues of worship and faith. Dietary changes triggered by religious regulation result in shifting agricultural practices. As in the case of the shifts around the term *jangala/jangal*, changes in agricultural practice can result in profound environmental change over time (sometimes over very short time periods).

It is beyond the scope of this working paper to itemize the types of religious changes which have had such impacts, but it is worthwhile commenting on the varieties of religious idea systems which seem to pervade the Punjabi countryside in particular, and which are perhaps most likely to be understood as affecting foundational models both of nature and other domains.

Hinduism is undoubtedly the oldest extant religious system in South Asia. There are a number of sacred texts which lay out much of the mythological context in which Hinduism is supposed to have emerged; and there are descriptions of rituals practiced by various religious priestly elites over the centuries. But Hinduism lacks the same coherence and orthodoxy (however contested) of some other world religions, such as Christianity, Islam or Judaism. Central to the idea of Hinduism is the hierarchically organized caste system, or *Varna* system. The *Varna* are the principle classifications of Hindu caste and they indicate a person's station in the current life. Through reincarnation it is possible for people to move from one *Varna* to another, but within a single lifetime, there is no mechanism for legitimate mobility through *Varna*. Marriot's (1976) suggestion that personhood in India should be understood as a partible entity in India reflects a number of what might be understood as important idea systems in Hinduism. Such partible personhood, or the related notion of dividuality, offers a logical explanation for caste segregation in general and ritual separation of food preparation and consumption between groups in particular.

Subsequent South Asian religions like Buddhism and Sikhism, unsurprisingly, share many common idea systems with Hinduism and unproblematically use notions like *karma* or *dharma* even while shedding some aspects of the *varna* system. Islam, ostensibly introduced a radical break from many aspects of Hinduism which might have led to more profound shifts in foundational cultural models, but of course it was not embraced in a vacuum not entirely, or even primarily, by force. South Asians were attracted to Islam for different reasons and the Muslim practices that developed across

South Asia were and are considerably more heterodox than they may appear from popular representations of South Asian, particularly Pakistani, Islam.

Conclusion.

The idea of competing models of social organization is compelling throughout the ethnographic record of South Asia (see Leaf 1972; 2005). Pakistani representations and understandings of nature are impacted by foundational cultural models which are derived from the environment, as well as other domains of social life. Conceptual models of nature have reflected, and continue to reflect, political relationships between socially recognized groups of people. Foundational cultural models are pervasive and underpin aggregated instantiations of culture which are derived from a complex interaction of idea systems (Leaf 2007; 2008). The terms, and relationship between terms, is subject to fundamental change over time, as economic and environmental conditions change, as well as in less predictable ways as people in situations bend, manipulate and contort aspects of competing idea systems to suit their interests.

To date, there has been a relative lack of focus on conceptual models of nature within the ethnography of Pakistani Punjab. There is, however, sufficient reason evidence from existing ethnographies to begin to sketch out some preliminary ideas of aspects of nature. Firstly, that much of the organization of the natural world (animals and plants), reflects the organization of the cultural world (caste, class, gender and other hierarchical relationships). Such an association perhaps renders existing differential access to resources and power more 'natural' in context (though this is not to suggest that the losers in these societies are content to remain so). Secondly, that the economic drivers of activity have a strong impact on models of nature. Dove's (1992) demonstration of how a shift in agricultural practices effectively flipped a key term on its head is illustrative of the importance of economic drivers for conceptual cultural models. Thirdly, that religion, although ostensibly very powerful and pervasive across South Asia, is perhaps not as important to foundational models of nature as one might predict. Pakistani Muslim farmers would appear to be comfortable with adopting Islamic symbols of nature, while retaining practical conceptual models of nature for use in everyday agricultural practices.

The demonstration of these three sketchy points is both feasible and relatively straightforward. Such a project, if done in coordination with the more global ambitions implied by the other papers in this volume, promises to not only yield valuable insights into the mechanisms for cultural adaptation in rural Punjab, but also more widely for human populations confronting environmental, political and economic change in the context of a persistent need to sustain viable food production levels for themselves and their communities.

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